

Where is toxicity located?

Side glances through fieldwork in a toxic place

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In this photographic essay, each numbered text section corresponds with the illustration figure number. Ed.

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1. Sahih Kaam is a pseudonym that means 'Right Work' in Hindi.

Fig. 1. Waste as a place maker. A hoarding placed on top of a pile of municipal solid waste. Kabadabad, October 2019.

Fig. 2. Order at a CRT 'regunning' shop in Kabadabad, November 2019.

1.

In 2019, when I arrived for fieldwork in Kabadabad (as I call it), a well-known electronic scrap market in New Delhi, India, I was acutely aware of the diverse toxicants present in the local air, food and water, which I had read about beforehand. Yet, the longer I stayed there, the more I found myself wondering where these toxic substances were. More so since market residents and workers did not speak unequivocally about the pollution in their working and living spaces. This contradicted the image that my preparatory reading materials had conjured up.

Initially, there did seem to be a convergence between these preconceived notions and the overpowering smell of burnt plastic and the sight of open sewers and piles of municipal solid waste that assailed my senses. However, the dearth of stories about pollution and its effects on workers *in situ* drew me to consider how toxicity did not saturate social life in the e-waste market. There was no overwhelming sense of ailment in a toxic wasteland – as had been suggested by the reports. At the same time, I was intensely aware that toxins often remain imperceptible, increasing the feeling of threat and making it difficult to understand what they do. Thus, for me, the question became how to evoke more responsively what was going on in Kabadabad.

The photos presented here are a selection of those I took during fieldwork as visual accompaniments to my fieldnotes. The invisibility of toxicity does not lend itself easily to photographic practice. Instead of illustrating, representing or framing toxicity, I have selected seven pictures that contradict the established narrative on e-waste toxicity and allow the breadth and intensity of social life to come to the fore. Here, I take seriously the task of 'staying with the trouble' (Haraway 2017) by paying attention to lives built on scraps, much as a pile of waste becomes a placeholder for a hoarding.

Looking back at these images, I can see another narrative emerging, in which the toxic waste also forms the basis of a thriving community. Instead of presenting and representing linear notions of disarray and electronics out of place, I aim to evoke some contradictions that break down such a master narrative (Tyler 1986). The pictures

offer a glimpse, not so much of how toxicity settles in the body, but rather how it organizes the social world of the e-waste dumping ground.

2. E-waste dumping and salvage aesthetics

The harm that e-waste wreaks upon humans and their environment is retold innumerable times in articles, reports and photo essays – so many times and so often that it is hard to single out any one example here. This conventional narrative draws relations in a linear way between a vocabulary describing hellish landscapes of dumps and rubbish heaps and pictures that confirm the horror of mounting piles of electronics. The horror lies in the quantity and the disarray, with broken electronics appearing out of place in former rice fields or densely populated urban areas. Such scenes come to stand in for toxicity, a substance wholly invisible in itself.

Such language links these narratives to the most widely cited report, *Exporting harm: The high-tech thrashing of Asia* (BAN 2002) by the Basel Action Network, an environmental advocacy group. This document launched into existence a powerful narrative that irons out the complexities of social life. The danger of this is that some unestablished facts in the report have formed the basis for policy with far-reaching effects (Lepawsky 2018). Such a narrative draws a direct relation between e-waste, its toxicity and the resulting concrete effects, without acknowledging the difficulty of actually establishing these relations (Harvey 2020).

The condemnation of New Delhi's peripheries as a toxic wasteland and its containment are, in part, based on a visual language that I call salvage aesthetics. Ever since e-waste loomed on the horizon as an issue in the early 2000s, pictures of waste electronics have been matched with a language that aims to invoke feelings of disgust and guilt in the users of electronic devices. Shots of grime on unprotected limbs, piles of broken computers, CRT (cathode ray tube) monitors and CPU (central processing unit) casings alongside vulnerable workers take centre stage. Salvage aesthetics emerged from such media representations of e-waste sites. It frames e-waste through repetition and sets up a visual narrative of electronic items in





Fig. 3. On my first visit, inspecting a warehouse as part of a health and safety workshop. Kabadabad, February 2019.

Fig. 4. Label on an empty wall showing wear and tear, locating a place for stacking CPUs in Sahih Kaam's warehouse. Kabadabad, June 2019.

BAN 2002. *Exporting harm: The high-tech trashing of Asia*. www.ban.org/s/Exporting-Harm-Report.pdf.

Baviskar, A. 2003. Between violence and desire: Space, power, and identity in the making of metropolitan Delhi. *International Social Science Journal* 55: 89-98.

Davies, T. 2019. Slow violence and toxic geographies: 'Out of sight' to whom? *Environment and Planning C: Politics and Space* OnlineFirst (April).

Douglas, M. 1966. *Purity and danger: An analysis of concepts of pollution and taboo*. Abingdon: Routledge & Kegan Paul.

Ghertner, A. 2015. *Rule by aesthetics: World-class city making in Delhi*. Oxford: Oxford University Press.

different states of disrepair, masses of electronics tangled together and grime on the bodies of vulnerable workers as a metonym for invisible, imperceptible toxicity.

There are material effects from this narrative, which ignores the lives that are built on e-waste. People told me that too often, the arrival of a TV crew would be followed closely by punishing police raids, which did nothing to halt the practices but levied a whimsical, arbitrary tax in bribes. As the camera lens zoomed in on the most polluting and horrific-looking practices, the workers and traders became weary of such portrayals and moved their activities behind walls, inside houses and further out towards the periphery of the city.

3. Waste and the law

I followed Manish and Satish, employees of Sahih Kaam,¹ to the Kabadabad waste market. Sahih Kaam is a for-profit company that regularizes e-waste recycling and sources e-waste from informal markets across North East Delhi. To counteract its toxic effects, Sahih Kaam aims to divert e-waste into legitimate, registered, documented recycling circuits as part of the extended producer responsibility (or EPR) of electronics goods producers. In 2016, the Indian government, as part of its E-waste (Management) Rules, introduced a policy to make producers and resellers take responsibility for a certain percentage of their yearly sales calculated to have become obsolete each year. Producers can fulfil their legally mandated obligation through producer responsibility organizations (PROs) such as Sahih Kaam.

Manish and Satish often described Kabadabad as a slum, remarking on the bad air quality in the area and

the irritations and allergies this caused them. They also often wondered how people could live in such conditions. Following them around in the market helped me circumvent the usual suspicion that e-waste traders held towards foreigners, whom they associated with the media or government authority. I was also able to observe the work carried out within the warehouses and witness the mess hidden behind the closed doors, where bags of electronics and broken parts were stacked against each other. Whatever was considered not valuable enough to be resold was left on the floor as a carpet of *choora*: mixed plastic broken down into small parts through being repeatedly crunched underfoot, yet still retaining some characteristics of waste electronics.

At first, my senses, the sight of the broken electronic items and the resulting debris confirmed my internalized salvage aesthetics. Yet, the more I followed Sahih Kaam employees and listened to their environmental concerns, the more striking it became that scrap dealers lacked certainty regarding e-waste's toxicity. However, regularization follows recommendations derived from the singular narrative of e-waste's toxicity and leaves out the concerns of those who live with that toxicity.

4. Order and disorder

In contrast to the supposed messiness of the informal recycling market, the warehouses and dismantling plants in the formal sector attempt to appear well organized. Aesthetically, the warehouses continuously threaten to slide into disorder, but documentation, categorization, a designated workflow and attention to decluttering surfaces helps to keep up an appearance of order. The warehouse of Sahih Kaam is located not far from the disorderly informal market. Items are piled by category and inventories are made based on computerized data to track what comes in and what goes out. Allocating a place for each e-waste category is an integral part of planning a new unit and getting it approved by the authorities. These labels, such as one indicating a place to store CPUs, are most clearly visible when there is no waste in a unit that is being set up or cleared for high-ranking visitors from abroad. Yet workers use labels to differentiate space from informal warehouses. At other times, piles of e-waste tend towards disorder, as more immediate concerns push printers to sit under labels for CPUs or keyboards or vice versa.

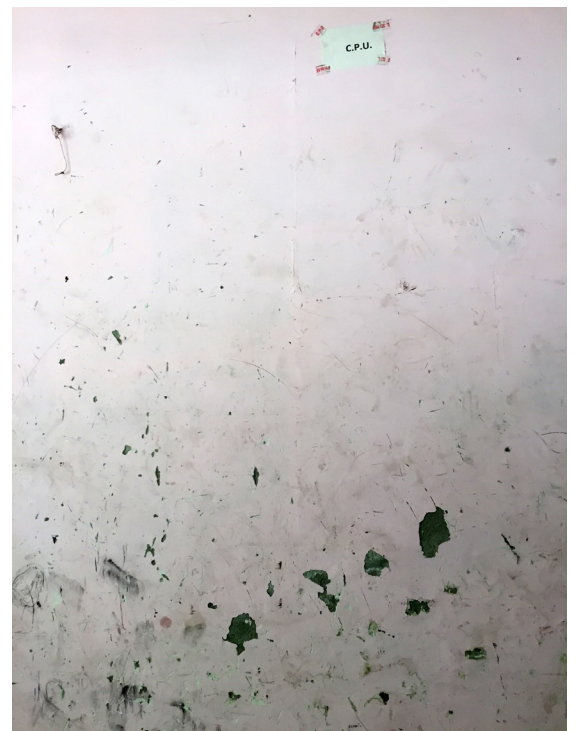




Fig. 5. Shiny surfaces used to plan toxicity awareness workshops reflecting the urban skyline in Gurugram, May 2019.

Fig. 6. The e-waste market transformed from a men's world to a women's shopping street. Kabadabad, August 2019.

Labels and the order they try to establish raise questions about these attempts to contain toxicity. Often, it is impossible to disentangle the acts of environmental advocates in designating the process of e-waste dismantling from the middle-class judgements that overlap with the logic of purity and danger (Douglas 1966). They manifest the class prejudices of Delhi's middle-class residents towards the city's periphery (Sharan 2014). In Delhi's peri-urban spaces, judgements about environmental harm and pollution emanating from e-waste are entangled with contrasting class-based ideas of order and disorder (Baviskar 2003). How professionals try to contain toxicity reveals existing socio-economic cleavages in India's capital and

the desire for a different aesthetic type. In a small way, mirroring a rule by aesthetics (Ghertner 2015), the narrative techniques of salvage aesthetics are capitalized on, contrasted to and mobilized to present well-labelled places as 'safe'. It is a matter of power to pronounce areas represented by images of grime and piles of waste electronics as toxic, while labels, registers and extensive documentation are regarded as safe.

The process of 'formalization' in e-waste recycling unfolds through a mix of aesthetic, bureaucratic and narrative techniques. In the established e-waste narrative, the word 'informal' describes dismantling practices in low-income neighbourhoods with no oversight from the government or other organizations that might regulate the health and environmental effects of the industry. To stake a claim to formality is to convince the authorities and investors of order in a formal unit through setting itself against the disorder that salvage aesthetics denotes. Labels denoting spaces for e-waste categories, such as CPUs, are part of the projection of formality, safety and the intention to order.

5. Filaments across the city

During my fieldwork, I often sat with Shaheed and his brother, two workers in the informal sector. As I sat in their warehouse day after day, observing them dismantling CD-ROM players, I found that e-waste's toxic effects were neither evident, nor final, nor easy to express in words. When I asked pointed questions, they hesitated or changed the topic, diverting their gaze away from their own bodies to mine: 'I've been doing this work since I was 16 years old' – suggesting that with time, bodies can get used to the work.

At Sahih Kaam's office with spotless shiny surfaces or in high-end event halls, divorced from any bodily intimacy with smells, disorder and dirt, e-waste's toxicity appears more concrete. The resulting harms are discussed and deliberated upon with greater intensity than among 'those who are most affected' (Davies 2019). Sahih Kaam employees who spent their days planning awareness workshops about the toxicity in e-waste would often mention allergies and other harms. Salvage aesthetics is not the only aesthetics that characterizes the e-waste ecology in Delhi.

Such spatial and bodily (dis)connections produce a dis-aggregation between the physical experience of toxicity and where they become visible. This disturbs the supposition that we can quickly call on 'those most affected' to bear witness to the out of sight, attritional violence that unfolds slowly across time and space (Davies 2019). The office space, where one could marvel at the reflection of the city in a glass panel, was where toxicity appeared in frequent and concrete narrations. Despite their concreteness, these narrations started to crumble when I began visiting the e-waste market in person.

6. The market

By contrast, on site, toxicity often took a backstage. One of my earliest photos at the 'Jumma market' offers a view of the road transformed into a colourful swirl on Fridays. After the men had gone and come back from the mosque, stalls would appear on the street with wares that attracted the children and women of the neighbouring streets. This was the road which I would walk along every time I left or returned to my lodgings. On regular days, I would walk past gloved hands industriously piling broken CRT monitors onto a truck or a crouching figure separating ferrous from non-ferrous metals with a giant magnet. This daily routine included the sound of hammers and power tools as the workers ploughed through the entangled mess of copper, steel, plastic and glass. On both sides, small,

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Fig. 7. Life on the rooftops is a testimony to the inhabitants' desire for space and air. Kabadabad, August 2019.



ground-floor shops opened up into the depths of houses with changing stocks of broken air conditioners, laptops, keyboards, many types of transformers, discarded borewells, washing machines and a strange mess of unidentified items.

Yet, on Fridays, the shutters went down, and the Jumma market took over. The street would transform from the world of men to the world of women. Figures draped in colourful synthetics and black burqas filled the streets to haggle over cheap plastic household items, ready-made dresses and leftover cloth. On Fridays, work on e-waste gave way to other activities.

The shutters also went down on other days of the week when shopkeepers had other jobs to tend to or when the police came to engage in one of their regular 'sealing drives' when they sealed warehouses. They would seal several units on each occasion, as Delhi's zoning laws prohibit 'industrial activities' in residential areas. These sealing drives often followed a flare-up of media attention on informal e-waste dismantling practices. In effect, these drives also provided a regular source of income for the local police. However, as e-waste becomes a high-profile environmental case, where petty bribery no longer provides ready solutions, for now, the order to seal comes from the Supreme Court, and fines must be paid in full. To pay such hefty fines, both those affected and those who have been spared in each round come together to share the

financial burden of the penalties, for they know that their turn may be next.

Toxicity and pollution, then, can have polyvalent meanings and e-waste supports various ways of life. Although laws and law enforcement try to pin down and contain toxic practices, there appears to be little effect from the public measures that consider salvage aesthetics proof of toxicity.

7. Layers and storeys of invisibility

Piles of e-waste on the street and the busy bustle around it are but a small fraction of the social, material and economic life in Kabadabad. Much goes on behind closed doors. Prospective in-laws visit each other, trying to spy on each other's business secrets. Truckloads of e-waste are bought and sold from cosy living rooms while biryani is eaten, cooked by dutiful wives. Such a perspective complicated my understanding of the place. The rooftops revealed a desire for space and air. The vantage point of the rooftops allowed for a reinterpretation of what I perceived to be a lack of concern for toxic exposure in a densely populated urban area.

As a result of the rise and fall of media attention and the concomitant police raids, many of the more harmful dismantling processes go on behind closed doors and on the rooftops. When discussing my research, Raees Khan, my asthmatic neighbour and an out-of-work property dealer, would point left and right, indicating the places where wires would burn at night on the rooftops, out of sight of the police. One could observe the goings-on in an inner courtyard full of broken CRT monitors from his balcony overlooking the street.

Early on in my fieldwork, the sight of a tandoor oven wheeled out of the shopfront right in front of the gates of the same house filled me with horror. The fluffy, yellow flatbreads that came out of the oven every afternoon showed no sign of the lead contamination that only laboratory testing would reveal.

CRT monitors are now hopelessly obsolete, with less and less demand for their refurbished use as cheap TVs, for flatscreens are getting more affordable and more widespread every day. Thus, to recover lead dust and copper in the courtyards, workers break off the yokes.

The few old, one- and two-storey houses that remain are now surrounded by a forest of three to four storey informal unplanned buildings that lean against each other and provide great hiding places for the persecuted salvage industry.

Conclusion

Through the lens of the camera and the accompanying meandering narratives, different orders of visibility and invisibility reveal themselves. While photo essays and other visual narratives often index toxicity through salvage aesthetics, these do not fully account for life in the e-waste market. In my attempt to bring together photos of a toxic place, I also attended to these other aspects of life, which unfold despite or alongside the harmful waste activities.

At the same time, salvage aesthetics also has material effects as it provides the basis and organizing principle for attempts to regularize, formalize and bring under control the threat posed by e-waste to human health and the environment. The business in discarded electronics and their dismantled elements sustain life. Therefore, it is not their toxic effects, but the quantity of materials bought and sold which are the constant topic of discussion in the market.

Yet, the threads of discussions about toxicity also weave together disjointed and distant parts of the city. While e-waste patterns place, it does not threaten to eclipse life in the areas where it appears. Toxics mingle, complement and become part of the urban fabric, part of the multiple hazards threatening life in the metropolis. Even then, this threat remains unevenly seen. ●